SEQUENCE LISTING

<110> Shionogi & Co., Ltd

<120> Composition for promoting passive extension of bladder smooth muscle

<130> S0042PCT

<140>

<141>

<150> JP P1999-177549

<151> 1999-06-23

<160> 6

<170> Patentin Ver. 2.0

<210> 1

<211> 1457

<212> DNA

<213> Homo sapiens

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<221> CDS

<222> (165).. (719)

<220>

<221> mat peptide

<222> (447).. (602)

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cttggacttc ggagttttgc cattgccagt gggacgtctg agactttctc cttcaagtac 120

ttggcagatc actctcttag cagggtctgc gcttcgcagc cggg atg aag ctg gtt 176

Met Lys Leu Val

tcc	gtc	gcc	ctg	atg	tac	ctg	ggt	tcg	ctc	gcc	ttc	cta	ggc	gc t	gac	224
Ser	Val	Ala	Leu	Met	Tyr	Leu	Gly	Ser	Leu	Ala	Phe	Leu	Gly	Ala	Asp	
-90					-85			•		-80					-75	
acc	gc t	cgg	ttg	gat	gtc	gcg	tcg	gag	ttt	cga	aag	aag	tgg	aat	aag	272
Thr	Ala	Arg	Leu	Asp	Val	Ala	Ser	Glu	Phe	Arg	Lys	Lys	Trp	Asn	Lys	
				-70					-65					-60		
tgg	gc t	ctg	agt	cgt	ggg	aag	agg	gaa	ctg	cgg	atg	tcc	agc	agc	tac	320
Trp	Ala	Leu	Ser	Arg	Gly	Lys	Arg	Glu	Leu	Arg	Met	Ser	Ser	Ser	Tyr	•
			-55					-50					-45			
		•					•									
ccc	acc	ggg	ctc	gc t	gac	gtg	aag	gcc	ggg	cct	gcc	cag	acc	ctt	att	368
Pro	Thr	Gly	Leu	Ala	Asp	Val	Lys	Ala	Gly	Pro	Ala	Gln	Thr	Leu	He	
		-40					-35					-30)	
cgg	ccc	cag	gac	atg	aag	ggt	gcc	tct	cga	agc	ccc	gaa	gac	agc	agt	416
Arg	Pro	Gln	Asp	Met	Lys	Gly	Ala	Ser	Arg	Ser	Pro	Glu	Asp	Ser	Ser	•
	-25					-20					-15					
•																
ccg	gat	gcc	gcc	cgc	atc	cga	gtc	aag	cgc	tac	cgc	cag	agc	atg	aac	464
Pro	Asp	Ala	Ala	Arg	Ile	Arg	Val	Lys	Arg	Tyr	Arg	Gln	Ser	Met	Asn	
-10					-5				-1	1				5		
						•										
aac	ttc	cag	ggc	ctc	cgg	agc	ttt	ggc	tgc	cgc	ttc	ggg	acg	tgc	acg	512
Asn	Phe	Gln	Gly	Leu	Arg	Ser	Phe	Gly	Cys	Arg	Phe	Gly	Thr	Cys	Thr	
		•	10	١				15					20			
gtg	cag	aag	ctg	gca	cac	cag	atc	tac	cag	ttc	aca	gat	aag	gac	aag	560
Val	Gln	Lys	Leu	Ala	His	Gln	Ile	Tyr	Gln	Phe	Thr	Asp	Lys	Asp	Lys	
		25				•	30					35				
gac	aac	gtc	gco	ccc	agg	ago	aag	ato	agc	ccc	cag	ggc	tac	ggc	cgc	608
Asp	Asn	Val	Ala	Pro	Arg	Ser	Lys	Ile	Ser	Pro	Gln	Gly	Tyr	Gly	Arg	
	40	ı				45	,				50)				

cgg	cgc	cgg	cgc	tcc	ctg	ccc	gag	gcc	ggc	ccg	ggt	cgg	ac t	ctg	gtg	656
Arg	Arg	Arg	Arg	Ser	Leu	Pro	Glu	Ala	Gly	Pro	Gly	Arg	Thr	Leu	Val	
55					60					65					70	

tct tct aag cca caa gca cac ggg gct cca gcc ccc ccg agt gga agt 704
Ser Ser Lys Pro Gln Ala His Gly Ala Pro Ala Pro Pro Ser Gly Ser
75 80 85

gct ccc cac ttt ctt taggatttag gcgcccatgg tacaaggaat agtcgcgcaa 759 Ala Pro His Phe Leu

90

gacateceget ggigeeteec gggacgaagg acticecgag eggigigggg aceggeetet 819
gacageetig eggagaeeet gagteegga ggeacegtee ggeggegage tetggettig 879
caagggeeee teettetggg ggettegett eettageett geteaggige aagtgeeea 939
gggggegggg tgeagaagaa teegagigit tgeeaggett aaggagagga gaaactgaga 999
aatgaatget gagaeeeee gageaggggt etgageeae geegtgeteg eecacaaaet 1059
gattieteae ggegtgieae eecaceaggg egeaageete actattaett gaactiteea 1119
aaaeeetaaag aggaaaagtg eaatgegtgt tgiacataea gaggtaaeta teaatattta 1179
agtitigtige tgicaagatt tittitigtaa etteaaatat agagatatti tigtaeegita 1239
tatatigtat taagggeatt tiaaaageaa ttatattgie eteeetatt tiaagaeegtg 1299
aatgeeteag egaggigtaa agtigtiege egegggaat gtgagtigt tigtigteeat 1359
gaaagagaaa gaetgattae eteetgigtg gaagaaggaa acacegagie tetgiataat 1419
etatttaeat aaaatgggtg atatgegaae ageaaaee

⟨210⟩ 2 **<211> 185** <212> PRT <213 Homo sapiens **<400> 2** Met Lys Leu Val Ser Val Ala Leu Met Tyr Leu Gly Ser Leu Ala Phe -85 -90Leu Gly Ala Asp Thr Ala Arg Leu Asp Val Ala Ser Glu Phe Arg Lys -75 -70-65 Lys Trp Asn Lys Trp Ala Leu Ser Arg Gly Lys Arg Glu Leu Arg Met -50-55 Ser Ser Ser Tyr Pro Thr Gly Leu Ala Asp Val Lys Ala Gly Pro Ala -35-45Gln Thr Leu Ile Arg Pro Gln Asp Met Lys Gly Ala Ser Arg Ser Pro -20-15-30-25Glu Asp Ser Ser Pro Asp Ala Ala Arg Ile Arg Val Lys Arg Tyr Arg -10Gln Ser Met Asn Asn Phe Gln Gly Leu Arg Ser Phe Gly Cys Arg Phe 10 15 5 Gly Thr Cys Thr Val Gln Lys Leu Ala His Gln Ile Tyr Gln Phe Thr 25 30 20 Asp Lys Asp Lys Asp Asn Val Ala Pro Arg Ser Lys Ile Ser Pro Gln 50 45 35 40 Gly Tyr Gly Arg Arg Arg Arg Ser Leu Pro Glu Ala Gly Pro Gly

60

55

65

Arg Thr Leu Val Ser Ser Lys Pro Gln Ala His Gly Ala Pro Ala Pro 70 75 80

Pro Ser Gly Ser Ala Pro His Phe Leu.

85

90

<210> 3

<211> 1493

<212> DNA

<213> Sus scrofa

<220>

<221> CDS

⟨222⟩ (148)..(711)

<220>

<221> mat peptide

<222> (430).. (585)

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tgccactgcc agagggacgt ctcagacttc atcttcccaa atcttggcag atcacccct 120

tagcagggtc tgcacatctc agccggg atg aag ctg gtt ccc gta gcc ctc atg 174 Met Lys Leu Val Pro Val Ala Leu Met

-90

tac ctg ggc tcg ctc gcc ttc ctg ggc gct gac aca gct cgg ctc gac 222

Tyr Leu Gly Ser Leu Ala Phe Leu Gly Ala Asp Thr Ala Arg Leu Asp

-85 -80 -75 -70

gtg gcg gca gag ttc cga aag aaa tgg aat aag tgg gct cta agt cgt 270 Val Ala Ala Glu Phe Arg Lys Lys Trp Asn Lys Trp Ala Leu Ser Arg

gga	aaa	aga	gaa	ctt	cgg	ctg	tcc	agc	agc	tac	ccc	acc	ggg	atc	gcc	318
Gly	Lys	Arg	Glu	Leu	Arg	Leu	Ser	Ser	Ser	Tyr	Pro	Thr	Gly	He	Ala	
			-50					-45					-40			
gac	ttg	aag	gcc	ggg	cct	gcc	cag	ac t	gtc	att	cgg	ccc	cag	gat	gtg	366
Asp	Leu	Lys	Ala	Gly	Pro	Ala	Gln	Thr	Val	Ile	Arg	Pro	Gln	Asp	Val	
		-35					-30					-25				
aag	ggc	tcc	tct	cgc	agc	ccc	cag	gcc	agc	att	ccg	gat	gca	gcc	cgc	414
Lys	Gly	Ser	Ser	Arg	Ser	Pro	Gln	Ala	Ser	Ile	Pro	Asp	Ala	Ala	Arg	
	-20					-15					-10					
atc	cga	gtc	aag	cgc	tac	cgc	cag	agt	atg	aac	aac	ttc	cag	ggc	ctg	462
lle	Arg	Val	Lys	Arg	Tyr	Arg	Gln	Ser	Met	Asn	Asn	Phe	Gln	Gly	Leu	
-5				-1	1				5					10		
								•								
cgg	agc	ttc	ggc	tgt	cgc	ttt	ggg	acg	tgc	acc	gtg	cag	aag	ctg	gcg	510
Arg	Ser	Phe	Gly	Cys	Arg	Phe	Gly	Thr	Cys	Thŗ	Val	Gln	Lys	Leu	Ala	
			15					20					25			
cac	cag	atc	tac	cag	ttc	acg	gac	aaa	gac	aag	gac	ggc	gtc	gcc	ccc	558
His	Gln	Ile	Tyr	Gln	Phe	Thr	Asp	Lys	Asp	Lys	Asp	Gly	Val	Ala	Pro	
		30					35					40				
cgg	agc	aag	atc	agc	ccc	cag	ggc	tac	ggc	cgc	cgg	cgc	cga	cgc	tct	606
Arg	Ser	Lys	Ile	Ser	Pro	Gln	Gly	Tyr	Gly	Arg	Arg	Arg	Arg	Arg	Ser	
	45					50					55					
ctg	ccc	gaa	gcc	agc	ctg	ggc	cgg	ac t	ctg	agg	tcc	cag	gag	cca	cag	654
Leu	Pro	Glu	Ala	Ser	Leu	Gly	Arg	Thr	Leu	Arg	Ser	Gln	Glu	Pro	Gln	
60					65					70					75	
•																
gcg	cac	ggg	gcc	ccg	gcc	tcc	ccg	gcg	cat	caa	gtg	ctc	gcc	act	ctc	702
Ala	His	Glv	Ala	Pro	Ala	Ser	Pro	Ala	His	Gln	Val	Leu	Ala	Thr	Leu	

80 85 90

751

ttt agg att taggcgccta ctgtggcagc agcgaacagt cgcgcatgca Phe Arg Ile

tcatgccggc gcttcctggg gcggggggct tcccggagcc gagcccctca gcggctgggg 811 cccgggcaga gacagcattg agagaccgag agtccgggag gcacagacca gcggcgagcc 871 ctgcattttc aggaacccgt cctgcttgga ggcagtgttc tcttcggctt aatccagccc 931 gggtcccgg gtgggggtgg agggtgcaga ggaatccaaa ggagtgtcat ctgccaggct 991 cacggagagg agaaacigcg aagtaaatgc ttagaccccc aggggcaagg gtctgagcca 1051 ctgccgtgcc gcccacaaac tgatttctga aggggaataa ccccaacagg gcgcaagcct 1111 cactattact tgaactttcc aaaacctaga gaggaaaagt gcaatgtatg ttgtatataa 1171 agaggtaact atcaatattt aagtitgttg ctgtcaagat tittitttgt aacticaaat 1231 atagagatat titigtacgi tatatatigi attaagggca tittaaaaca attgtatigi 1291 tcccctcccc tctattttaa tatgtgaatg tctcagcgag gtgtaacatt gtttgctgcg 1351 cgaaatgtga gagtgtgtgt gtgtgtgtgc gtgaaagaga gtctggatgc ctcttgggga 1411 agaagaaaac accatatctg tataatctat ttacataaaa tgggtgatat gcgaagtagc 1471 1493 aaaccaataa actgtctcaa tg

<210> 4

<211> 188

<212> PRT

<213> Sus scrofa

<400)> 4														
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Lys	Trp	As n -60	Lys	Trp	Ala	Leu	Ser -55	Arg	Gly	Lys	Arg	Glu -50	Leu	Arg	Leu
Ser	Ser -45	Ser	Tyr	Pro	Thr	Gly -40	He	Ala	Asp	Leu	Lys -35	Ala	Gly	Pro	Ala
Gln -30	Thr	Val	Пe	Arg	Pro -25	Gln	Asp	Val	Lys	Gly -20	Ser	Ser	Arg	Ser	Pro -15
Gln	Ala	Ser		Pro -10	Asp	Ala	Ala	Arg	Ile -5	Arg	Val	Lys	Arg	Tyr 1	Arg
Gln	Ser	Met 5	Asn	Asn	Phe	Gln	Gly 10	Leu	Arg	Ser	Phe	Gly 15	Cys	Arg	Phe
Gly	Thr 20	Cys	Thr	Val	Gln	Lys 25	. Leu	Ala	His	Gln	Ile 30	Tyr	Gln	Phe	Thr
Asp 35	Lys				Gly 40								Ser		Gln 50
Gly	Tyr	Gly	Arg	Arg 55	Arg	Arg	Arg	Ser	Leu 60	Pro	Glu	Ala	Ser	Leu 65	Gly
Arg	Thr	Leu	Arg 70		Gln			Gln 75	Ala	His	Gly	Ala	Pro 80	Ala	Ser

Pro Ala His Gln Val Leu Ala Thr Leu Phe Arg Ile

<210> 5

<211> 1376

<212> DNA

<213> Rattus norvegicus

<220>

<221> CDS

<222> (154).. (708)

<220>

<221> mat peptide

(222) (433).. (582)

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ggtttigccg ctgtcagaag gacgtctcgg actttctgct tcaagtgctt gacaactcac 120

cctttcagca gggtatcgga gcatcgctac aga atg aag ctg gtt tcc atc gcc 174 Met Lys Leu Val Ser Ile Ala

-90

ctg atg tta ttg ggt tcg ctc gcc gtt ctc ggc gcg gac acc gca cgg 222

Leu Met Leu Leu Gly Ser Leu Ala Val Leu Gly Ala Asp Thr Ala Arg

-85 -80 -75

ctc gac act tcc tcg cag ttc cga aag aag tgg aat aag tgg gcg cta 270 Leu Asp Thr Ser Ser Gln Phe Arg Lys Lys Trp Asn Lys Trp Ala Leu -70 -65 -60 -55

agt cgt ggg aag agg gaa cta caa gcg tcc agc agc tac cct acg ggg 318 Ser Arg Gly Lys Arg Glu Leu Gln Ala Ser Ser Ser Tyr Pro Thr Gly
-50 -45 -40

ctc	gtt	gat	gag	aag	aca	gtc	ccg	acc	cag	act	ctt	ggg	ctc	cag	gac	366
Leu	Val	Asp	Glu	Lys	Thr	Val	Pro	Thr	Gln	Thr	Leu	Gly	Leu	Gln	Asp	
			-35					-30					-25			
aag	cag	agc	acg	tct	agc	acc	cca	caa	gcc	agc	act	cag	agc	aca	gcc	414
				Ser												
-	•	-20					-15		•			-10				
cac	att	cga	gtc	aaa	cgc	tac	cgc	cag	agc	atg	aac	cag	ggg	tcc	cgc	462
				Lys												
	-5	_			-1	1				5	•				10	
														•		
agc	act	gga	tgc	cgc	ttt	ggg	acc	tgc	aca	atg	cag	aaa	ctg	gct	cac	510
				Arg												
				15					20					25		•
	٠.															
cag	atc	tac	cag	ttt	aca	gac	aaa	gac	aag	gac	ggc	atg	gcc	ccc	aga	558
Gln	Ile	Tyr	Gln	Phe	Thr	Asp	Lys	Asp	Lys	Asp	Gly	Met	Ala	Pro	Arg	
			30					35					40			
														٠		
aac	aag	atc	agc	cct	caa	ggc	tat	ggc	cgc	cgg	cgc	cgg	cgt	tcc	ctg	606
Asn	Lys	Ile	Ser	Pro	Gln	Gly	Tyr	Gly	Arg	Arg	Arg	Arg	Arg	Ser	Leu	
		45					50					55				
cca	gag	gto	ctc	cga	gcc	cgg	act	gţg	gag	tcc	tcc	cag	gag	cag	aca	654
Pro	Glu	Val	Leu	Arg	Ala	Arg	Thr	Val	Glu	Ser	Ser	Gln	Glu	Gln	Thr	•
	60	ı				65	•				70)				
cac	tca	gc t	cca	gco	tcc	cce	gcg	cac	caa	gao	atc	tcc	aga	gtc	tct	702
His	Ser	Ala	Pro	Ala	Ser	Pro	Ala	His	Gln	Asp	lle	Ser	Are	, Val	Ser	
75)				80)				85					90	
agg	tta	tag	ggtgo	ggg	tggc	agca	itt g	gaaca	gtcg	g go	gagt	atco	cat	tggc	gcc	758
Arg	Leu	ı														

⟨210⟩ 6

<211> 185

<212> PRT

<213 Rattus norvegicus

<400> 6

Met Lys Leu Val Ser Ile Ala Leu Met Leu Leu Gly Ser Leu Ala Val -90 -85 -80

Leu Gly Ala Asp Thr Ala Arg Leu Asp Thr Ser Ser Gln Phe Arg Lys
-75 -70 -65

Lys Trp Asn Lys Trp Ala Leu Ser Arg Gly Lys Arg Glu Leu Gln Ala

-50

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	-60					-99				•	-90				
Ser -45	Ser	Ser	Tyr	Pro	Thr -40	Gly	Leu	Val	Asp	G1u -35	Lys	Thr	Val	Pro	Thr -30
Gln	Thr	Leu	Gly	Leu -25	Gln	Asp	Lys	Gln	Ser -20	Thr	Ser	Ser		Pro -15	Gln
Ala	Ser	Thr	Gln -10	Ser	Thr	Ala	His	Ile -5	Arg	Val	Lys	Arg -1	Tyr 1	Arg	Gln
Ser	Met 5	Asn	Gln	Gly	Ser	Arg 10	Ser	Thr	Gly	Cys	Arg 15	Phe	Gly	Thr	Cys
Thr 20	Met	Gln	Lys	Leu	Ala 25	His	Gln	Ile	Tyr	Gln 30	Phe	Thr	Asp	Lys	Asp 35
Lys	Asp	Gly	Met	Ala 40	Pro	Arg	Asn	Lys	Ile 45	Ser	Pro	Gln	Gly	Tyr 50	Gly
Arg	Arg	Arg	Arg 55	Arg	Ser	Leu	Pro	Glu 60	Val	Leu	Arg	Ala _.	Arg 65	Thr	Val
Glu	Ser	Ser 70	Gln	Glu	Gln	Thr	His	Ser	Ala	Pro	Ala	Ser 80	Pro	Ala	His

Gln Asp Ile Ser Arg Val Ser Arg Leu 85 . 90